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From the Director's Desk

As we look ahead to 2007, I encourage you to watch upcoming issues of NIOSH eNews for new information on the WorkLife Initiative. We anticipate much activity on WorkLife in coming months, in laying the groundwork for a major conference on September 10-11, 2007, in Washington, D.C.

A few words by way of background: In Fall 2004, NIOSH and more than 50 co-sponsors and supporters held a national symposium called "Steps to a Healthier U.S. Workforce." We and our partners proposed that the time has come to explore the integration of health protection and health promotion in the workplace.

Numerous case studies and anecdotal reports have suggested that a comprehensive approach to occupational health makes sense for the 21st Century workplace. However, most efforts have not been evaluated in a rigorous, scientific way. Absent that level of scientific review, we do not know if or to what extent we can generalize from the limited experience available to us.

Participants at the 2004 symposium strongly encouraged NIOSH to lead a robust effort to address those questions. There is a particular need, they suggested, for strong research to develop and evaluate integrated work-based health interventions, for partnerships to engage diverse stakeholders in identifying and promoting effective practices, and for wide dissemination of information.

Since then, we have worked to incorporate those recommendations into our program activities and program planning. A notable development in this regard was our 2005 request for applications to fund new, university-based Centers for Excellence to Promote a Healthier Workforce. Two centers – one at the University of Massachusetts at Lowell and the other at the University of Iowa – were funded earlier this year, as we announced in last month's edition of NIOSH eNews. We look forward to working with our partners in the coming months to plan a stimulating, productive exchange at the September 2007 conference.

More information on the background of the WorkLife Initiative, as well as names and e-mail addresses of NIOSH contacts, can be found at <http://www.cdc.gov/niosh/worklife>. Please mark September 10-11, 2007, on your calendar. Watch for more information in the next few months, and please consider ways to take part in this historic initiative.

As we post our last edition of NIOSH eNews for 2006, I want to thank you for your interest in our activities and accomplishments. I am gratified that NIOSH contributed in many significant ways this year to our shared goal of preventing work-related injuries, illnesses, and deaths. Further challenges await us in the New Year, and I look forward to your continued enthusiasm in helping us to address them.

International Nanotechnology Conference Underway

NIOSH, the University of Cincinnati and other partners will cosponsor the "International Conference on Nanotechnology, Occupational and Environmental Health and Safety: Research to Practice" on December 4-7 in Cincinnati, Ohio. Participants will share the latest findings, interim recommendations, and practices for managing the occupational and environmental health and safety implications of nanomaterials along the life-cycle of those products. Additionally, the conference will explore nanotechnology's potential as a new tool for detecting, preventing and treating work-related illnesses. Further information on the conference is available at <http://www.uc.edu/noehs>. More information on NIOSH research and interim recommendations on occupational safety and health implications and applications of nanotechnology is available at <http://www.cdc.gov/niosh/topics/nanotech>.



NIOSH Begins Study of Construction Worker Falls and Close Calls

NIOSH, the Center to Protect Workers' Rights (CPWR) and the District Council of Northern New Jersey of the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers are collaborating to improve the prevention of falls and close calls in construction. Falls are the number one cause of fatal injuries in construction.

Apprentices and journeymen will evaluate two training tools to promote hazard recognition on job sites. Discussions with journeymen ironworkers who have experience with falls and close calls will be used to identify and eliminate working conditions that may contribute to close calls and falls. Contact Ted Scharf at TScharf@cdc.gov for more information on this research project. NIOSH resources on construction safety are available at <http://www.cdc.gov/niosh/injury/traumastruct.html>.



NIOSH Inactivates Draft Document on World Trade Center Postmortem Exam Guidelines

Based on independent scientific reviews, NIOSH will no longer develop the archived draft document, "Standardized Postmortem Examination Guidelines for Individuals Dying After Environmental Exposures Related to the Collapse of the World Trade Center on September 11, 2001." NIOSH will instead pursue other avenues for documenting long-term health effects from exposure to air contaminants from the WTC disaster. From our evaluation of the independent reviews, it appears that other avenues are more likely to achieve our goal, and that of our partners, of reducing uncertainties in assessing WTC health effects. NIOSH thanks the reviewers and will respond as suggested. A link to the archived draft document and external scientific reviews is available at http://www.cdc.gov/niosh/topics/wtc/WTC_examguidel-draft.html.

r2p Corner

NIOSH begins testing prototype for rapid detection of anthrax vaccination status in the field

NIOSH researchers and their colleagues recently established a device capable of rapidly assessing an individual's anthrax vaccination status with high sensitivity (*Clinical and Vaccine Immunology*, 13:541-546, 2006). This device, an anthrax lateral flow immunoassay, works similar to a home pregnancy test using blood from a fingerprick. NIOSH researchers will soon initiate beta testing of the serological lateral flow prototype under a new Memorandum of Understanding with the Naval Institute for Dental and Biomedical Research. Contact Raymond Biagini at RBiagini@cdc.gov for more information.



Anthrax Vaccine Doses

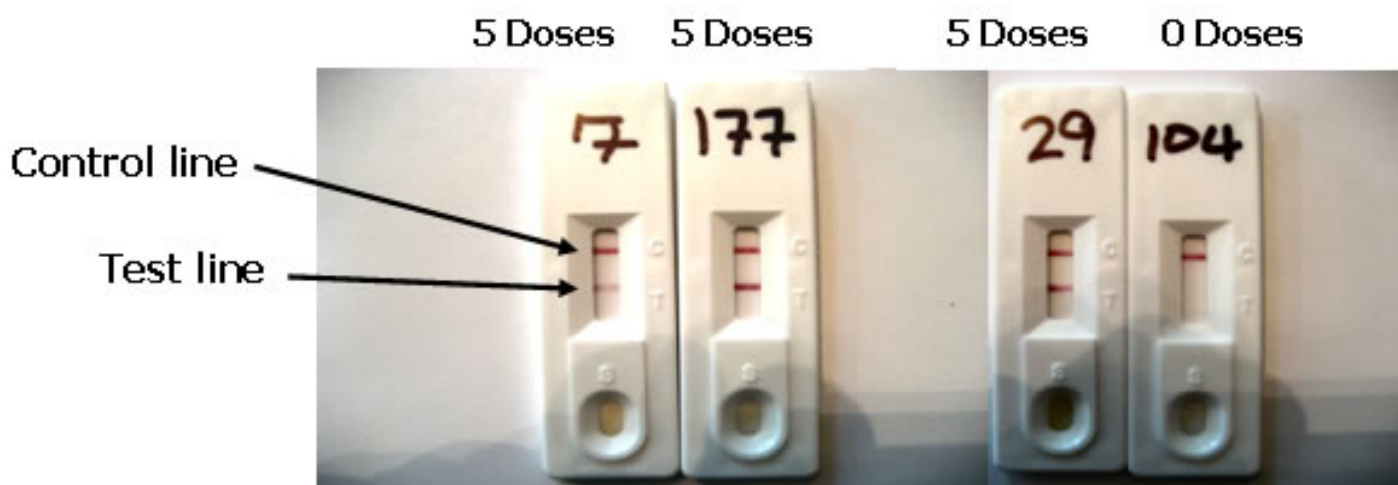


Figure 1. Demonstration of Prototype of Lateral Flow Device.

NORA

NORA Town Hall meeting in Puerto Rico

NIOSH has eagerly embraced the opportunity to hold an additional NORA Town Hall meeting, this time in Puerto Rico. It will be part of the “11th Annual Federal Safety & Health Congress, Expo & Emergency Management Conference” sponsored by the federal Occupational Safety and Health Administration (OSHA) and the local Puerto Rico Federal Safety & Health Council. The Town Hall session will be December 6. Participants are encouraged to speak for five minutes about a significant occupational safety and health issue affecting their geographic region, industry or area of expertise. Simultaneous English or Spanish translations will be provided. As with the previous Town Hall meetings, transcripts will be prepared and the information will be entered into the database of comments for consideration by the NORA Sector Councils and others when setting priorities for research. This information will be posted to the NORA Web site at <http://www.cdc.gov/niosh/nora/townhall>. More information about the conference is available at <http://www.puertoricosafety.org/main.htm>. As always, contact the NORA Coordinator at NORACoordinator@cdc.gov for more information.



Around NIOSH

Diversity in NIOSH

The NIOSH Diversity Steering Council (DSC) met for their annual face-to-face meeting in Morgantown, West Virginia on October 10-12 to set the roadmap for the future of diversity at NIOSH. Committee members plan on releasing an annual report on The State of Diversity at NIOSH. During the meeting, the council heard presentations by NIOSH employees on two aspects of diversity, personal and technological: Dr. William Wallace on his childhood experience with polio and the government's hiring practices in regards to disabled persons, and Captain James Spahr on designing safety equipment for use by a diverse population. To learn more about NIOSH's diversity effort, visit: <http://www.cdc.gov/niosh/pgms/diversity/>.



Division of Applied Research and Technology (DART)

NIOSH researcher Mike Gressel, a captain in the Commissioned Corps of the U. S. Public Health Service, recently received an Outstanding Unit Citation and commemorative plaque signed by the U.S. Surgeon General for his emergency response efforts related to the December 2004 earthquake and tsunami in the Indian Ocean. Captain Gressel deployed to Indonesia as a member of a six-person hospital assessment team from the U.S. Centers for Disease Control and Prevention (CDC). The team's mission was to assess the capacities of the remaining hospitals in Banda Ache, one of the areas worst hit by both the earthquake and tsunami. Captain Gressel and another engineer on the team evaluated nearly 90 buildings for structural integrity and functionality. The team's assessment findings were presented to the Indonesian Ministry of Health and helped prioritize healthcare resources sent to the affected regions.



Captain Mike Gressel with his award from the U.S. Public Health Service.

Division of Respiratory Disease Studies (DRDS)

On October 22 to 28, 2006, Dr. Edward Petsonk and Anita Wolfe of NIOSH and Dr. Jack Parker of West Virginia University traveled to Santiago, Chile to collaborate with the Chilean Public Health Institute in completing a Training Workshop on Radiographic Classification of [Pneumoconiosis](#). This activity is part of the International Labor Organization (ILO), World Health Organization, and Pan American Health Organization “Americas Initiative to Eliminate Silicosis.” Twenty-four Chilean physicians attended the five-day Workshop, which included small group practical teaching sessions as well as formal lectures covering legal issues, screening, recognition, pathology, management, quality assurance, surveillance, and

prevention of various occupational dust diseases. In addition to the NIOSH personnel, the Workshop faculty included professionals from the Chilean Institute of Public Health and several Chilean Hospitals. After completion of the training program, the workshop attendees underwent both a Chilean and a NIOSH examination for competency in accurately classifying radiographs of [pneumoconiosis](#) using the ILO International Classification system.

Division of Safety Research (DSR)

Virginia Lutz from the NIOSH Fire Fighter Fatality Investigation and Prevention Program recently participated in a radio pod cast which focused on the use of seat belts by fire fighters, sharing findings from NIOSH investigations of fire fighter deaths involving motor vehicles. The pod cast, moderated by Burton Clark of the U.S. Fire Administration, Department of Homeland Security, brought attention to the large portion of the fire service who do not wear their seat belt when riding in an emergency vehicle. The radio pod cast noted the importance of fire departments having and enforcing policies for seat belt use, and ensuring that all fire service vehicles have functioning seat belts. The pod cast also explored barriers to seat belt use, including issues of fit and culture. You can listen to the pod cast at <http://dynamic.firehouse.com/broadcast>. More information on the NIOSH Fire Fighter Fatality Investigation and Prevention Program can be found at <http://www.cdc.gov/niosh/fire>.

Education and Information Division (EID)

A new "School Chemistry Laboratory Safety Guide" developed by NIOSH and federal agency partners is available on the NIOSH web page. The guide provides high school teachers and students with useful and practical safety information to prevent injuries in school chemistry laboratories. NIOSH's partners were the Consumer Product Safety Commission and the Environmental Protection Agency. Other stakeholders included the chemical industry, unions, teachers, and State and Federal OSHA. The safety guide can be accessed at the NIOSH Web site at <http://www.cdc.gov/niosh/docs/2007-107>.



Health Effects Laboratory Division (HELD)

NIOSH researchers Robert Mercer, Rebecca Chapman, Tracy Hulderman and Petia Simeonova along with colleagues Mukesh Summan, Gordon Warren, and Nico Van Rooijen have been acknowledged by the American Journal of Physiology for their manuscript "Macrophages and skeletal muscle regeneration: a clodronate-containing liposome depletion study." The journal's Editor-in-Chief credits the article as being one of the most frequently read in the June 2006 issue (volume 290, issue 6, pages R1488-95). The article abstract can be accessed at <http://ajpregu.physiology.org/cgi/content/short/00465.2005v1>.

National Personal Protective Technology Laboratory (NPPTL)

During October 2006, the NPPTL Technology Evaluation Branch issued a total of 26 respirator approvals; two denials and three applications were withdrawn by the manufacturer. Of the 26 approvals, 19 were for modifications of products that had been previously approved and seven were for new products. Approval was denied for two products, one new and one modification. One new and two modifications were withdrawn. Twenty-seven applications for extensions of approval and 21 applications for new approvals were received.

NPPTL

The Engineering Evaluation team conducted two quality assurance manual audits to evaluate the quality assurance process and manufacturing practices. One product audit was initiated. The Certified Product Investigation Process completed two evaluations of previously certified products.

Spokane Research Laboratory (SRL)

Lori Matthews and Ted Teske received the top award for their poster presentation at the American Evaluation Association's (AEA) annual conference held in Portland, OR, November 1-4, 2006. The AEA is

regarded as one of the most prestigious international professional associations in the area of program evaluation. The title of the presentation was "Effective Safety Training in Mining: Examining the Transferability of Mixed-Methods Evaluation Research." The poster featured the mixed-methods evaluation results of the two most recent training videos created by SRL. It also emphasized the transferability of both the training video production process and the evaluation methods used.



*Lori Matthews and Ted Teske
with their winning poster.*

News From Our Partners

Liberty Mutual Research Institute announces senior research openings.

Liberty Mutual Research Institute for Safety is seeking highly qualified applicants for three director-level, research leadership positions. Applications are currently being accepted, and positions are open until filled. For more information, or to apply, visit <http://www.libertymutual.com/researchinstitute> under *What's New* or email researchinstitute@libertymutual.com.

Mark your calendars: Important paper and poster submission deadlines.

Just a reminder of several upcoming paper and poster submission deadlines for occupational safety and health related conferences.

- American Academy of Emergency Medicine 13th Annual Scientific Assembly
March 12-14, 2007, Las Vegas, Nevada
Call for Papers deadline is December 8, 2006.
<http://www.aaem.org>
- Americas' Fire and Security Expo 2007
July 24-26, 2007, Miami Beach, Florida
Call for Papers deadline is December 15, 2006
<http://www.americasfireandsecurity.com>
- National Safety Council 2007 Congress and Expo
October 12-19, 2007, Chicago, Illinois
Call for Papers deadline is January 12, 2007
<http://www.nsc.org>
- Association of Occupational Health Professionals 2007 National Conference
September 26-29, 2007, Savannah, Georgia
Call for Posters deadline is February 15, 2007
<http://www.aohp.org>
- European Respiratory Society Annual Congress 2007
September 15-19, 2007, Stockholm, Sweden
Call for Papers deadline is February 22, 2007
<http://www.ersnet.org>

Communication Products

NIOSH releases five new Health Hazard Evaluation Reports.

Transportation, Warehousing, and Utilities Sector

- **Evaluation of cancer occurrence in the transportation, warehousing, and utilities sector.** NIOSH investigators responded to a management request to determine if there was an excess of cancer cases among current and former workers at a power plant. The concern arose because of contamination of a power plant's potable water with hydrazine, which was used as an anti-corrosive additive in the boilers. Using state cancer registry data, NIOSH investigators calculated cancer rates among current and former employees and compared them to rates in the surrounding communities. No significant excess of lung, colon, or all cancers combined among workers potentially exposed to hydrazine was found. The full report is available at <http://www.cdc.gov/niosh/hhe/reports/pdfs/2003-0097-3018.pdf>.
- **Evaluation of noise exposure in the transportation, warehousing, and utilities sector.** NIOSH investigators responded to a management request to determine if a risk for hearing loss was posed by noise from conveyor belts and baggage inspection equipment in the checked baggage screening areas of an international airport. Of the 13 employees monitored, one had a noise dose exceeding the NIOSH recommended exposure limit, but none had exposures above the Occupational Safety and Health Administration permissible exposure limit. A spectral analysis of noise levels revealed a high-pitched noise that was not loud enough to pose a risk for work-related hearing loss, but was irritating to the employees. NIOSH investigators recommended further evaluation of noise exposures followed by development of a hearing conservation program, if needed, and engineering controls to reduce specific noise exposures. The full report is available at <http://www.cdc.gov/niosh/hhe/reports/pdfs/2005-0197-3010.pdf>.
- **Evaluation of diesel exposure in the transportation, warehousing, and utilities sector.** NIOSH investigators responded to a joint union/management request to assess equipment-generated diesel exhaust during move/load/unload operations at four marine terminals. NIOSH investigators collected air samples for diesel exhaust, carbon monoxide, and total particulate; interviewed employees; and reviewed illness and injury records. Although most diesel exposures were not above recommended exposures limits, exposure levels and employee symptoms indicated that a potential health hazard existed for workers in certain job titles. NIOSH investigators recommended work practice changes and engineering approaches to reduce exposures. The full report is available at <http://www.cdc.gov/niosh/hhe/reports/pdfs/2003-0246-3013.pdf>.

Manufacturing Sector

- **Evaluation of silver iodide exposure in the manufacturing sector.** NIOSH investigators responded to a management request to assess exposure to silver iodide during the manufacturing of cloud-seeding flares. Concerns were raised by the occurrence of thyroid disease in several employees. Silver iodide exposures levels were less than 0.4 mg/m³; occupational exposure limits have not been developed for silver iodide. Exposures to aluminum, magnesium, and strontium were well below occupational exposure limits. Based on their review of employees' medical records NIOSH investigators concluded that diagnosed medical conditions were not related to workplace exposures. The full report is available at <http://www.cdc.gov/niosh/hhe/reports/pdfs/2004-0239-3014.pdf>.
- **Evaluation of styrene and other process-related exposures in the manufacturing sector.** NIOSH investigators responded to an employee request concerning potential long-term effects from

exposure to smoke and chemicals generated while manufacturing polystyrene and cutting polyethylene sheeting and expandable polystyrene foam. NIOSH investigators conducted area and personal breathing zone air sampling. All sample results were below applicable occupational exposure limits. The full report is available at <http://www.cdc.gov/niosh/hhe/reports/pdfs/2005-0243-3016.pdf>.

Upcoming Events

Call for Papers issued for the following conferences.

- **"2007 Johnson Conference: Workplace Aerosol Sampling to Meet ISO Size-Selective Criteria"**
Abstracts will be accepted until December 15, 2006. The conference will be held July 16-20, 2007 in Burlington, VT and is sponsored by ASTM International. More information on the Call for Abstracts is available by contacting Martin Harper, Conference Chairman, at MHarper@cdc.gov. Additional information on the conference can be found at <http://www.astm.org> under Symposia and Workshops.
- **"Occupational and Environmental Exposures of Skin to Chemicals"**
Abstracts will be accepted until February 17, 2007. The conference will be held June 17-20, 2007 in Golden, Colorado and is cosponsored by NIOSH and the Colorado School of Mines. Scientists will exchange information on the science, knowledge gaps, challenges and policy opportunities related to exposures of the skin to chemicals with special emphasis on improved prevention of local and systemic injury and disease. More information on the conference can be found at http://www.mines.edu/outreach/cont_ed/oeesc.

Word of the Month

Pneumoconiosis is the term for a class of respiratory diseases caused by the inhalation of dust. Lung damage can occur due to the body's reaction to dust particles which have settled in the lung. The pneumoconioses include the major fibrotic lung diseases such as asbestosis, coal workers' pneumoconiosis, and silicosis, as well as less common diseases such as siderosis and berylliosis. More information on pneumoconiosis can be found on the NIOSH topic page, <http://www.cdc.gov/niosh/topics/pneumoconioses>.

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